

# FARM FIELD AND GARDEN

## TILE DRAINING.

How Ohio's Progressive Farmers Changed Wet Soil into Fine Wheat Land.

Mr. Terry, writing to The Rural New Yorker, expressed his respect for tiles as follows: "I have some land that was naturally cold, wet and hard. From long experience I find that tile draining, good tillage, rotation with clover and light manuring will make such land bring good crops of wheat and clover. In fact, on what was once the poorest, hardest clay spot on the farm, I had last year as fine wheat as I ever grew; but these places will not produce large crops of potatoes. If my land were all of that character I would never plant any. It would be wiser to grow what the land is better fitted for. I have reduced these hard places to such a condition that they are not eyesores when the field is in potatoes, as they once were. In riding by they would not particularly attract one's attention; but the digger would perhaps find 300 bushels per acre on the natural potato soil, whereas when it struck these spots there would be only 100 or less.

"Now, the above is the practical part of it. The question is, whether 'it is possible.' I would hardly want to say no to that, as man can do almost anything. With tile draining and an unlimited supply of manure, and clover grown and plowed under, it is possible that the natural condition of the soil could be so changed in time that great crops even of potatoes could be grown on it; but it would not pay.

"The time was when a man could afford to go to great expense to grow a crop in a locality where the soil was not naturally suited to it; but that day has, as a rule, gone by. Transportation is cheap now, and the raising of special crops in localities naturally adapted to them has come to stay, and this practice will steadily increase in the future, because it is business, and our farmers are gradually becoming more businesslike."

W. I. Chamberlain, with a rich and varied experience of forty years with underdraining, gives his experience with tile draining and permanent timothy. He says:

One strip of 10 acres had about 84 tiled and the rest not, until last winter. Six years ago it was seeded down to clover and timothy with wheat; and phosphates were used costing four dollars per acre. The clover (best on the tiled part) nearly all "went out" after two years and left clear timothy. On the tiled part the timothy has fully held its own and even increased year after year, but not on the part not tiled. This year I cut forty immense loads from the 10 acres—loads, I say, cocked overnight and drawn chiefly on a hay rack 17 1/2 feet long, and loaded heavily because it had to be drawn about half a mile. One average load well cured weighed 2,400 pounds on the scales. But the point is this—while the timothy on the tiled part has held its own or increased year after year, that on the part not tiled has grown thinner and shorter, and weeds, coarse grass and especially that miserable pest plantain, have come in. This year the hay on the tiled part was easily twice as heavy as on the part not tiled—as strong, clean timothy as I ever saw, with no plantain or weeds in it. The timothy was so dense that it shaded the weeds to death before they got a real start.

### Instructional Facts About Corn.

There are differences between yellow and white corn independent of the color. The former contains more starch and will make more whisky, and is preferred for animal food where fattening is the object in view. The latter has more gluten and oil, and is almost universally preferred for bread. As food for horses, where nerve and bone nutriment are more desired than fat, white corn has the preference. White corn is considered as coming nearer to oats than yellow corn, and is therefore better food for working animals. So far as the results of analysis are known white corn has about 1 per cent. more of the muscle forming elements than yellow corn, but the relative value of the two varieties in this respect has not been very accurately determined.

The corn plant is one of the most widely distributed, but every section has a type best suited to its soil and latitude; therefore the interchange of seed northern and southern grown is not a safe practice if the distance to the north or south is a long one. From east to west the transfers may be longer. Corn planted in the north from a southern seed grown in longer seasons is almost certain to be caught by frost. The plant, however, has the faculty of becoming acclimated, and under a few years of cultivation of adapting its growth and period of ripening to the seasons of the sections to which it is grown, says The World.

### Effect of Lime on Soils.

Lime is not classed as a manure, but its effects on many soils are often highly beneficial. This arises principally from its chemical action in hastening the decomposition of organic matter and fitting it for plant food rather than from any fertilizing properties of its own that are directly drawn upon by plants. On what are termed sour lands, such as grow sorrel and other acid plants freely, it is used to especial advantage. Its action is so different upon different soils that it is best to use it experimentally before incurring the expense of applying it in large amounts.

The dairy commissioner of New Jersey says that upon investigation he has found that oleomargarine is almost universally used at the seaside resorts, such as Ocean Grove, Atlantic City and Long Branch. It was served up on the tables of the hotels and in the cottages as pure butter, and was brought in in trunks, hat boxes, wash hampers and the like to escape the eye of the law.

## THE FUTURE OF OUR ROADS.

A Hopeful Glance Ahead—Construction in Private Hands.

High class roads would do very much to improve local trade in very many sections of the United States, increase communication between sections and thus elevate the condition of the people. Improved machinery for roadmaking would reduce the cost and shorten the time occupied in doing the work and also make an improvement in the finished road. A complete equipment would require considerable outlay, and should be under the direction of men of experience and skill. The farmer of the present day is indebted to the skill of the carriage and wagon maker for his vehicles; to the manufacturer of agricultural implements for his tools, and there is no reasonable objection to his being indebted to the professional road-making company for his well constructed wagon roads. Imagination easily transports the reader onward at this juncture, and he awakens about the year A. D. 1900. Almost the first man he meets, perhaps, is a resident of the state capital, and well known for individual enterprise and influence. In answer to inquiries he replies:

"I am now president of the Capital City Wagon Road Construction Company, and yonder (pointing with a proud wave of the hand to a large building opposite) is our establishment. Come over and let me show you through. The first story is a large room extending the full length of the building, paved with brick, in which you see a multiplicity of tools adapted to roadmaking. All these and many more are the tools of our trade. We employ a certain number of skilled workmen. You see that pile of tools yonder? We send the men out equipped with wagons and tents; they camp on the road and move along as the work is completed, getting supplies from the nearest town. This is our arsenal where we stow the machines.

"This past year we have been building four roads in this county, connecting small towns. They are six rods wide and have a central line of rails for electric cars; on both sides of these avenues the land is laid out in building lots 100 feet front by 200 feet deep, giving an area of half an acre. These lots are being bought by people from town, who are seeking the healthy air of the country and making pleasant homes within easy access of the city. Back of them they have the open farm lands, and in front the avenue with electric railway, telephone and electric light wires.

"Along these roads there is a constant stream of travel. The Tradesmen's Building association has bought within the past year 200 lots on one of these avenues on which it is erecting neat houses for workmen and mechanics. Thus, you see, population is being scattered out into the country, and the centers of trade and business are relieved of their surplus.

"The result to the whole population has been highly beneficial. It has brought into use a very large amount of real estate not before considered valuable, and prices of building lots are nearer their true value. In making our contracts we are careful to have good surveys and maps and specifications which are made by our own engineer. Careful estimates are made beforehand, and when the work on the ground is begun it goes forward without unnecessary delay, and is done as efficiently and thoroughly as possible. Our men are under the direction of foremen and assistants who understand every detail of the requirements and specifications. The labor is greatly reduced in amount and cost by ingenious machines.

"Since roadbuilding companies came into existence common wagon roads have become first class avenues of travel; the introduction and use of wide tires on wheels has lessened the wear and tear of the road surface and the solid manner in which we built them gives excellent satisfaction. There are many miles of inferior roads yet in use, but year by year they are being reconstructed, and public favor has been fully accorded us for what we have done.

"In some sections we have laid down on the roads tramways of broad iron rails on which vehicles of all kinds travel with great ease and with very light draft. Branches are carried from the main road right into some farmyards and cars are loaded at the barns."

To return to present considerations, private enterprise is always superior in the lines of production to public workshops under the direction of officials who owe their selection to political influence. This has been shown in the production of all kinds of work, but especially in shipbuilding and in all kinds of weapons of warfare. The discipline of the army and navy produces order and system, but does not encourage enterprise or foster ingenuity. So the wagon roadmakers might become tradesmen and be so classified.

There are many districts where vast areas of land are but poorly cultivated, where indifferent methods of farming prevail and the land is neglected. A complaint that farming does not bring sufficient profit to justify working is common with some large land owners. In such districts the roads are very poor. Within the last decade a new impulse seems to have been given to horticulture, and increased attention has been paid to agriculture, as a result of which improved methods are rapidly reviving many districts. Fine fruit and grain cannot be hauled over rough roads, and the thoroughgoing farmer is never likely to be satisfied with imperfect highways. With so many considerations in their favor, therefore, there is hope for better things in roadmaking even if the era of large roadbuilding companies should be a long time coming.—Condensed from an article by William Claypoole, C. E., in Engineering Magazine.

By improving the country roads according to an intelligent system taxes will be increased slightly but the accruing profits from the reform will pay them twenty times over, besides good roads would make a magnificent legacy for posterity.

# THE GREAT STRIKE CONTINUES!

The Strike in the Oregon City Woolen Mills is settled, but

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Children's Sailor Hats only 25c. Good value at 40c.

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Royal Baking Powder, 1 lb. . . . .	45	10 dozen 50c. jack knives . . . . .	25
17 lb. Dry Gran. Sugar . . . . .	1 00	7 spools O. N. T. thread . . . . .	25
Full pound Climax Tobacco . . . . .	45	Child's lace shoes, 6 to 8 to close . . . . .	50
25c. Extract Lemon for . . . . .	15	Salt Salmon, pound . . . . .	05
Tubular Lanterns . . . . .	50	Notions, as usual, one-half price.	

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